

Rabbit anti-Human PCK1 Polyclonal Antibody | anti-PCK1 antibody

PCK1 (Phospho-Ser90) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA312985	Rabbit	Human	Immunohistochemistry, Western Blot

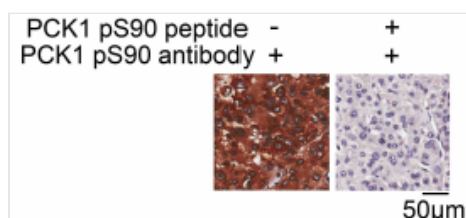
PRODUCT SYNONYMS

PCK1; Polyclonal Antibody; PCK1 (Phospho-Ser90) Antibody; anti-PCK1 antibody

PRODUCT SPECIFICATIONS

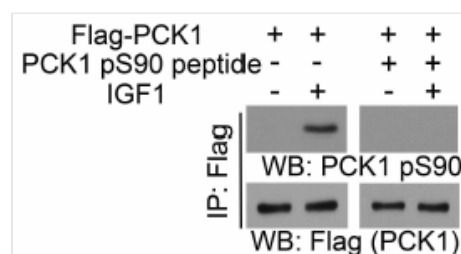
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	PCK1 (Phospho-Ser90) antibody detects endogenous levels of PCK1 only when phosphorylated at serine90.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH7.4, 150mM NaCl, 0.02% sodium azide.
Applicable Applications for anti-PCK1 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	The antiserum was produced against synthesized phosphopeptide derived from Human PCK1 around the phosphorylation site of serine 90.
Preparation and Storage	Store at -20 degree C for 1 year

IMAGES



IHC (Immunohistochemistry)

IHC analyses of human HCC samples were performed with the indicated antibodies in the presence or absence of a PCK1 pS90 blocking peptide.



Application Data

Huh7 cells expressing DYKDDDDK-PCK1 were treated with or without IGF1 (100 ng/ml) for 1 h. Immunoprecipitation and immunoblotting analyses were performed with the indicated antibodies in the presence or absence of a PCK1 pS90 blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PCK1 antibody	Phosphoenolpyruvate carboxykinase (PCK) is the rate-limiting enzyme of gluconeogenesis in the liver and kidney and converts oxaloacetate and GTP into phosphoenolpyruvate (PEP) and CO ₂ by adding a phosphate to pyruvate with concomitant aldol cleavage of CO ₂ from oxaloacetate 1,2. In humans, cytosolic PCK1 shares 63.4% sequence identity with PCK2, which is located in the mitochondria 3. Aberrant PCK expression occurs in many cancers. For instance, PCK1 is overexpressed in melanoma and colorectal cancer, and PCK2 is highly expressed in breast, colon and lung cancer cells ⁴⁻⁸ . In a recent study, it is reported that AKT in tumor cells phosphorylates cytosolic phosphoenolpyruvate carboxykinase 1 (PCK1) at S909. Phosphorylated PCK1 translocates to the ER, where PCK1 uses GTP as a phosphate donor to phosphorylate Insig1 S207 and Insig2 S151. This phosphorylation reduces the binding of sterol to Insig1/2 and disrupts Insig-SCAP interaction, leading to SCAP/SREBP1 translocation to the Golgi apparatus and subsequent SREBP1 activation and downstream gene transcription for lipogenesis, tumor cell proliferation, and tumorigenesis in mice ⁹ .
Product Categories/Family for anti-PCK1 antibody	Primary Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	93138710
NCBI GeneID	5105
UniProt Accession #	P35558; Q8TCA3; Q9UJD2; A8K437; B4DT64
Molecular Weight	622
NCBI Official Full Name	Phosphoenolpyruvate carboxykinase, cytosolic
NCBI Official Synonym Full Names	phosphoenolpyruvate carboxykinase 1 (soluble)
NCBI Official Symbol	PCK1
NCBI Official Synonym Symbols	PEPCK1; PEPCKC; PEPCK-C
NCBI Protein Information	phosphoenolpyruvate carboxykinase, cytosolic [GTP]; phosphoenolpyruvate carboxykinase, cytosolic [GTP]; PEP carboxykinase; phosphopyruvate carboxylase; phosphoenolpyruvate carboxylase
UniProt Protein Name	Phosphoenolpyruvate carboxykinase, cytosolic [GTP]
UniProt Gene Name	PCK1
UniProt Synonym Gene Names	PEPCK1; PEPCK-C
UniProt Entry Name	PCKGC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pck1-antibody-immunohistochemistry-western-blot-elisa/312985>